

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS

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U.S. Air Force Joint Warfare Analysis Center (JWAC) Support Services

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Washington, DC 20405

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C.1 BACKGROUND:

The Air Force (AF) Joint Warfare Analysis Center (JWAC) Compartmented Computing Environment Lab (JCCE) architecture is a secure highly virtualized computing platform based within an existing data center. The infrastructure is based on Cisco Unified Computing System servers, NetApp data storage, Cisco Nexus networking and VMware virtualization technologies.

The architecture builds on the system, network, and storage virtualization and leverages automation and remediation, scanning, monitoring and other capabilities to ensure consistency and security across multiple, independent highly secure environments running a variety of Windows Server, Linux and Windows 10 client operating systems.

C.1.1 PURPOSE:

The TO is to provide AF JWAC, software development and system management support services to support JWAC's IT environments, which are located at the Naval Support Activity - South Potomac (NSA-SP) in Dahlgren, Virginia. The JWAC provides the combatant commands, Strategic Command (STRATCOM), and the Joint Staff with effects-based, precision targeting options for selected networks and nodes in order to carry out the national security and military strategy of the United States during peace, crisis, and war.

JWAC is a 400 member command. All members except a few liaisons are located on Naval Support Facility Dahlgren, Dahlgren, Virginia. All IT services are internal to support JWAC users.

The contractor shall provide all personnel, supervision and security clearances to effectively advance and maintain the existing JWAC Compartmented Computing Environment Lab (JCCE) IT infrastructure in four air-gapped production and two Lab environments. JWAC requires support services for specified tasks within JWAC's General Services (GENSER), Sensitive Compartmented Information (SCI), and Special Access program (SAP) offices.

C.2 SCOPE:

The contractor shall provide the required tasks to be performed by the contractor to perform configuration management, orchestration, and system administration of workstations, servers, hypervisors, networking, and storage devices. There are two unclassified, one secret, and three top secret JCCE environments. The scope includes the following JCCE requirements:

- **JCCE Core Requirements**
 - Four Production Environments
 - One Development Environment
- **JCCE Lab Requirements**
 - 6 Lab Environments and a network infrastructure layer that provides for lab-to-lab connectivity
- **JCCE Software Development Requirements**
 - Software Development for the JCCE Environments

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C.3 OBJECTIVE:

The objective of this TO is to provide contractor support to perform software development and system management support services to assist the AF JWAC. The Contractor shall follow JWAC working processes as specified in the Performance Work Statement (PWS) such as JWAC software development processes, guidelines, principles, current/emerging configuration management practices, secure programming practices/procedures (unit tests, code analysis, etc.), compliance guidelines, and standards. Additionally, the Contractor shall be accountable for the assigned product lines, software applications, or services to include conception, requirements, design and architecture, test, and release. These products will be developed for customer-bases that average two dozen or less assets who focus on iterative research & development. There is an expectation of production releases to be occurring at least once a month.

C.4 TASKS:

C.4.1 TASK 1 – PROGRAM MANAGEMENT :

The contractor shall provide program management under this TO. This task is intended to cover programmatic oversight at the contract level to JCCE CORE, JCCE Lab and SDIMS. This includes the project management and coordination tools to track progress, maintain source control, and provide status on code commits if the application is developed in-house or in the JWAC cloud.

- The current standard tooling is *Microsoft Team Server (TFS)/Azure DevOps* and is used for source control, work item tracking, project management, continuous integration and continuous delivery pipelines.
- The current project management framework is based on the *Scaled Agile Framework (SAFe)* (<https://www.scaledagileframework.com/>, refer to Essential SAFe) development model.
- Each application is planned quarterly for a twelve (12) week train and is released a minimum of every two (2) weeks with emerging bug fixes occurring more often. High level progress shall be logged on the Software Development SAFe Board and progress is briefed to management at least every two (2) weeks.

The contractor shall provide a qualified workforce capable of performing the required tasks. The contractor shall use key performance metrics to monitor work performance, measure results, ensure delivery of contracted product deliverables and solutions, support management and decision-making and facilitate communications.

The contractor shall identify risks, resolve problems and verify effectiveness of corrective actions.

The contractor shall institute and maintain a process that ensures problems and action items discussed with the Government are tracked through resolution and shall provide timely status reporting. Results of contractor actions taken to improve performance shall be tracked, and lessons learned incorporated into applicable processes.

The contractor shall establish and maintain a documented set of disciplined, mature, and continuously improving processes for administering all contract and task order efforts with an

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emphasis on cost-efficiency, schedule, performance, responsiveness, and consistently high-quality delivery.

C.4.1.1 SUBTASK 1 – COORDINATE A PROJECT KICK-OFF MEETING:

The contractor shall schedule, coordinate, and host a Project Kick-Off Meeting at the JWAC's facility within 10 business days after task order award in coordination with the JWAC TPOC and GSA COR. The meeting shall provide an introduction between the contractor personnel and Government personnel who will be involved with the TO. The meeting shall provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include Key contractor Personnel, TPOC, other relevant Government personnel, and the GSA COR.

At least three days prior to the Kick-Off Meeting, the contractor shall provide a Kick-Off Meeting Agenda (Section F, Deliverable 1) for review and approval by the GSA COR and the AF JWAC TPOC prior to finalizing. The agenda shall include, at a minimum, the following topics/deliverables:

- a. Points of Contact (POCs) for all parties.
- b. Personnel discussion (i.e., work experience, turnover management, roles and responsibilities and lines of communication between contractor and Government).
- c. Project Staffing Plan and status.
- d. Technical approach.
- e. Security discussion and requirements (i.e., TS/SCI cleared personnel, building access, badges, Common Access Cards (CACs)).
- f. Financial reporting and invoicing requirements.

The Government will provide the contractor with the number of Government participants for the Kick-Off Meeting, and the contractor shall provide sufficient copies of the PowerPoint for the kickoff for all present.

The contractor shall draft and provide a Kick-Off Meeting Minutes Report (Section F, Deliverable 4) documenting the Kick-Off Meeting discussion and capturing any action items within seven (7) business days after the meeting.

C.4.1.2 SUBTASK2 – ACCOUNTING FOR CONTRACTOR MANPOWER REPORTING:

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the JWAC via a secure data collection site. The contractor is required to completely fill in all required date fields using the following web address: <http://www.ecmra.mil/>.

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1st through September 30th. While inputs may be reported any time during the FY, all data shall be reported no later than 31 October of each calendar year. Contractors may direct questions to the help desk at: <http://www.ecmra.mil>.

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C.4.1.3 SUBTASK 3 – PREPARE A MONTHLY STATUS REPORT (MSR):

The contractor shall provide an MSR detailing work performed during the previous month. Monthly status reports shall be delivered to the TPOC and COR via the GSA ASSIST portal no later than the 25th of the following month. It is the responsibility of the contractor to ensure the government received the soft copy.

The MSR must include the following:

- a. Financial expenditure information (burn rate) of the task.
- b. The fiscal year of the funds , problems and corrective actions taken. Also include issues or concerns and proposed resolutions to address them.
- c. Summary of personnel cleared to SCI and SAP level supporting the effort.
- d. A copy of the latest officially submitted invoice shall be included in the monthly report.
- e. Provide weekly team updates summarizing the above updates and shall be delivered via the GSA ASSIST portal by the end of the work week.

C.4.1.4 SUBTASK 4 – PREPARE A MONTHLY FINANCIAL STATUS REPORT (MFSR):

The contractor shall develop and provide an MFSR as both cumulative for the specific reporting month and shall also include man-hours associated. The monthly financial status reports shall be delivered to the TPOC and COR via the GSA ASSIST portal no later than the 25th of the following month. It is the responsibility of the contractor to ensure the government received the soft copy.

The MFSR must shall include the following:

- a. Comparison of program progress with any schedule milestones, if any.
- b. Identify all problems, risks, propose effective solutions and any other pertinent information on the status of JWAC's JCCE environments.
- c. Summary of personnel cleared to SCI and SAP level supporting the effort.
- a. Provide weekly team updates summarizing the above updates and shall be delivered via the GSA ASSIST portal by the end of the work week.

C.4.2 TASK 2 – JCCE CORE REQUIREMENTS:

JCCE CORE services support the work below with 1800-2000 workstations and 400-500 servers across 5 networks.

The proposed team must be proficient in the scripting languages of PowerShell/JavaScript/Python, to adequately support requirements defined in section in the PWS. Additionally, the team must have knowledge of network technologies and techniques such as TCP, IP, HTTP, HTTPS, SSL, DHCP, DNS, encryption, ports, and security certificates are foundational to fulfill requirements defined in the PWS and listed below.

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The contractor must perform the following tasks:

- a. Provide the software development services to support the implementation, monitoring and management of six key areas of the JCCE environment: (1) transition and operation services, (2) identity, authentication, and authorization (IAA) services, (3) compliance services, (4) monitor, alert, and remediation services, (5) corporate communications, and (6) automation/orchestration services.
- b. The contractor shall perform software development using the Microsoft Visual Studio suite and Windows Server 2016 or greater and be able to apply that knowledge to the requirements defined below.
- c. Create, update, and interpret software service architecture diagrams depicting service dependencies and interaction with other service components and services. These diagrams will be available for the contractors working on-site.
- d. Develop automated workflows, scripts and configurations for system and service installation, configuration, management and monitoring tasks and self-repair.
- e. Develop templates and scripts to perform automated administrative changes, patches and updates, configuration settings, and other system and infrastructure maintenance tasks such as system restart/rebuild/recovery, software installation and configuration.
- f. Develop CloudBolt cloud management platform automated workflows for system and service build, recovery, and reconstitution processes.
- g. Maintain configuration management tools such as Microsoft DSC and Puppet to maintain system consistency, integrity, and reliability.
- h. Maintain a monitoring system designated by JWAC to create systems and services that automatically detect and recover from anomalous events.
- i. Develop scripts and workflows for the automated installation, configuration, management, and monitoring of a variety of IAA services to include Microsoft Active Directory 2016/2019, DNS, DHCP, and certificate services within the JCCE environment.
- j. Design and develop the monitoring, alerting and remediation services within the JCCE environment on Linux platforms using Sensu monitoring, Grafana and Uchiwa dashboards, Postgres, Redis and InfluxDB data stores, and RabbitMQ messaging.
- k. Develop Puppet manifests to configure systems and services and script in a variety of languages including Ruby to implement automated remediation actions in response to monitored conditions.
- l. Develop scripts and workflows for the automated installation, configuration, management, and monitoring of a variety of automation related software services to include CloudBolt cloud management platform, Microsoft Windows Remote Management (WinRM), Microsoft Internet Information Services (IIS) Web Services; in addition to variety of file, database and data labeling software services and protocols to include Microsoft SQL Server, Common Internet File System protocol, Network File System protocol.
- m. The contractor team must participate in meetings with the government to discuss accomplishments, progress and issues related to the requirements defined in Section 3.0 on an as needed basis determined by the government's need.

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C.4.3 TASK 3 – JCCE CORE SURGE:

- a. JCCE - CORE Surge CLIN (U) The Government will have a surge requirement in the form of SME support for IT technology areas that may exceed the contractor's in house capabilities. JWAC expects the contractor may need to reach out to vendors (such as Microsoft, Cisco etc....) to support these tasks. The contractor shall provide adequate resources to meet that surge requirement not anticipated to exceed 3 times per year. Tasks will be negotiated and provide ample ramp up times to accomplish mission needs. As these needs arise a need statement will be issued to the contractor to propose a solution. This need is above and beyond the day-to-day actions of the JCCE CORE team.

C.4.4 TASK 4 – JCCE LAB PROGRAM MANAGEMENT:

- a. This task is reference under “**C.4.1 – PROGRAM MANAGEMENT**”

C.4.5 TASK 5 – JCCE LAB REQUIREMENTS:

The JCCE Lab is comprised of 6 individual lab environments, and a network infrastructure layer that provides for lab-to-lab connectivity. Across all environments, there are currently 40 users, 52 workstations, 16 servers and 47 networking equipment.

The contractor must perform the following tasks:

- a. Update and maintain an existing code base consisting of Puppet manifests, Windows Desired State Configuration (DSC) PowerShell code, and CloudBolt cloud management platform code in support of multiple environments consisting of both Microsoft Windows servers/workstations and CentOS servers/workstations. The updates are based on software and operating system updates and when Cyber Security mandates are issued. The contractor is expected to have detailed understanding of software development using the Microsoft Visual Studio suite and experience with Windows Server 2012 R2 minimal and be able to apply that knowledge to the requirements defined below.
- b. Develop and modify code to automate the deployment of new services per request by the TPOC in the lab environments primarily utilizing Docker containers deployed and monitored via Rancher.
- c. Configure, provision, and update a VMware vSphere/ESXi environment including modifying existing code (workflows and actions) for CloudBolt cloud management platform automation software.
- d. Develop and modify software to configure, provision, and update a Cisco networking environment utilizing a Representational State Transfer (REST) Application Program Interface (API). The contractor is also required to automate the configuration, provisioning and updating of network attached storage devices as well as develop software in a Linux CentOS environment utilizing source control repository.

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- e. Troubleshoot, remove, repair, and upgrade IT systems and hardware in the lab environments and perform data transfers between JWAC networks.
- f. Create, update, and interpret software service architecture diagrams depicting service dependencies and interaction with other service components and services.
- g. Develop and modify templates and scripts to perform automated administrative changes, patches and updates, configuration settings, and other system and infrastructure maintenance tasks such as system restart/rebuild/recovery, software installation and configuration.
- h. Maintain monitoring system designated by JWAC to create systems and services that automatically detect and recover from anomalous events.
- i. Modify and develop scripts (PowerShell, JavaScript, or other) and workflows for the automated installation, configuration, management, and monitoring of a variety of compliance management services to include McAfee antivirus, DISA Assured Compliance Assessment Solution (ACAS) within the JCCE environment.

C.4.6 TASK 6 – JCCE-L SURGE CLIN:

The contractor must perform the following tasks:

- a. JCCE-L Surge CLIN (U) The Government will have a surge requirement in the form of SME support for IT technology areas that may exceed the contractors in house capabilities. JWAC expects the contractor may need to reach out to vendors (such as Microsoft, Cisco etc....) to support these tasks. The contractor shall provide adequate resources to meet that surge requirement not anticipated to exceed 3 times per year. Tasks will be negotiated and provide ample ramp up times to accomplish mission needs. As these needs arise a need statement will be issued to the contractor to propose a solution. This need is above and beyond the day-to-day actions of the JCCE CORE team.

C.4.7 TASK 7 – SDIMS PROGRAM MANAGEMENT:

- a. This task is reference under “C.4.1 – PROGRAM MANAGEMENT”.

C.4.8 TASK 8 – SDIMS SOFTWARE DEVELOPMENT:

Software developers support a diverse set of development requirements from across the command. Most requirements are dynamic, changing with the needs of the command, its customers and the latest technologies. Demands for support exceed software development staffing so requirements are prioritized and resourced on a quarterly basis. Support is generally along 5 discrete areas consuming 200 hours per week.

The following paragraphs describe the JWAC software development environment:

The JWAC architecture is based on technologies and platforms which currently includes; Windows Server 2016+, Linux CentOS 7.5+, Windows .NET, Java, Microsoft Structured Query Language (SQL) Server, HBase, Cloudera Hadoop, Microsoft Visual Studio, Microsoft Team Foundation Server, GIT, Extract Transform Load Frameworks, NiFi, PowerShell, and MongoDB. JWAC is implementing a Development Operations (DevOps) architecture that allows

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for continuous delivery (CD) and continuous release (CR) of service/systems (software or hardware) and offers the ability for the system to detect its level of functionality and to self-correct.

Software engineering services expand into all parts of *Application Lifecycle Management* including hardware and software research and recommendation, interface design and refinement, automated testing, automated deployment, data security, database design and implementation, and application development and integration. The development efforts include areas such as analytical modeling, geographic information systems, multi-threading, data preparation and manipulation, exception handling, product development and training, web technology integration, software packaging, and application security development. Most of this work is developed on or for the JWAC in-house system. However, a number of the capabilities are currently, or will be, exported or integrated with existing DoD Cloud services.

The Contractor shall develop software applications, or services to include conception, requirements, design and architecture, test, and release. There is an expectation of production releases to be occurring at least once a month. Task requirements are specified below.

The contractor must:

- a. Create new and unique software applications used only at JWAC.
- b. Integrate COTS/GOTS/Open Source packages into JWAC analytical workflows.
- c. Develop Plugins to existing applications and quick turn-around prototypes or point solutions.
- d. Secure applications and development processes.
- e. Automate software development, release, and deployment processes.
- f. Upgrade and maintenance of existing applications and scripts.
- g. Integrate software application with DoD Cloud services to include creation of new Cloud services, migration of existing intranet services, and integration with existing Cloud services.
- h. Architecture design, document, and review, and evaluate software packages/services.

Additionally, the Contractor shall follow all JWAC software development processes, guidelines, principles, current/emerging configuration management practices, secure programming practices/procedures (unit tests, code analysis, etc.), compliance guidelines, and standards.

C.4.9 TASK 9 – SDIMS SOFTWARE DEVELOPMENT:

Software developers support a diverse set of development requirements from across the command. Most requirements are dynamic, changing with the needs of the command, its customers and the latest technologies. Demands for support exceed software development staffing so requirements are prioritized and resourced on a quarterly basis. Support is generally along discrete areas consuming 120 hours per week.

This task is reference under “C.4.8 – SDIMS SOFTWARE DEVELOPMENT”.

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C.4.10 TASK 10 – JCCE CORE TRAVEL:

The contractor shall conduct required travel in support of JCCE in accordance with Sections G.3.3 and H.6 of this TOR and requirements of this contract.

C.4.11 TASK 11 – JCCE - L TRAVEL:

The contractor shall conduct required travel in support of JCCE-L in accordance with Sections G.3.3 and H.6 of this TOR and requirements of this contract.

C.4.12 TASK 12 – TRANSITION-OUT SERVICES:

The contractor shall provide transition-out support when required by the Government. The Transition-Out Plan shall facilitate the accomplishment of a seamless transition from the incumbent to incoming contractor/Government personnel at the expiration of the TO. The contractor shall provide a Transition-Out Plan within six months of the project start date (Section F). The contractor shall review and update the Transition-Out Plan in accordance with the specifications for this task order.

In the Transition-Out Plan, the contractor shall identify how it will coordinate with the incoming contractor and/or Government personnel to transfer knowledge regarding the following:

- a. Project management processes.
- b. POCs.
- c. Location of technical and project management documentation.
- d. Status of ongoing technical initiatives.
- e. Appropriate contractor-to-contractor coordination to ensure a seamless transition.
- f. Transition of Key Personnel roles and responsibilities.
- g. Schedules and milestones.
- h. Actions required of the Government.
- i. Quality Assurance Plan.

The contractor shall also establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings or as often as necessary to ensure a seamless transition-out. The contractor shall implement its Transition-Out Plan NLT six months prior to expiration of the TO.

NOTE: The transition-out may occur at the end of any performance period.

C.4.13 SECURITY REQUIREMENTS:

C.4.13.1 Contract Staffing. The Contractor shall provide qualified personnel for each labor category positions described in this PWS and ensure completion of contractor and government required onboarding, orientation, transition, familiarization, program, facility and network security access requirements.

C.4.13.2 Onboarding. The Contractor shall complete all of contractor and government onboarding requirements for all labor category personnel provided. Onboarding documentation shall be submitted to the government as they become available. One hundred percent (100%) of

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the documents shall be submitted no later than sixty (60) calendar days after contract award date. Documents may include required professional certificates, training class completion certificates, common access card (CAC), local facility, program and network security access request forms.

C.4.13.3 On Site Contractor Positions. JWAC requires continuous secure uninterrupted Information Technology (IT) Enterprise Information System (EIS) contractor operational support. To maintain uninterrupted mission operations and facilitate contractor and government onboarding the Contractor shall:

C.4.13.3.1 Thirty (30) Calendar Days After Contract Award. No later than thirty (30) calendar days after contract award date the Contractor shall provide, no less than fifty percent (50%) of the contract personnel from each labor category position described in this PWS required to perform on-site support services and ensure completion of contractor and government required onboarding, orientation, transition, familiarization, program, facility and network security access requirements.

C.4.13.3.2 Sixty (60) Calendar Days After Contract Award. No later than sixty (60) calendar days after contract award date the Contractor shall provide, if any, the remaining contract positions described in this PWS required to perform on-site support services and ensure completion of contractor and government required onboarding, orientation, transition, familiarization, program, facility and network security access requirements.

C.4.13.4 Positions Requiring Security Clearance. Without exception, for all contract positions requiring security clearance the Contractor shall present only qualified personnel. The work being performed under this contract will range from UNCLASSIFIED to TOP SECRET//SENSITIVE COMPARTMENTED INFORMATION//SPECIAL ACCESS PROGRAM (TS//SCI//SAP). All personnel performing on this PWS shall be a U.S. Citizen. Some Positions require a favorably completed Tier 5 (T5/T5R) investigation (Top Secret) with SCI eligibility. Some positions will require a favorably completed Tier 3 (T3 or T3R) investigation to begin work, but a T5 must be initiated. The Contractor must possess a Top Secret Facility Clearance in order to submit an offer. Contractors shall request and submit personnel security clearances (submit Clearance paperwork through Defense Counterintelligence Security Agency (DCSA) to the National Background Investigation Services (NBIS)) for personnel requiring access to classified information within 15 days after contract award.